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AUTHOR Cuvelier, Pol
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ABSTRACT

To test the claim that verbs consistently occur in particular illocutionary contexts and that illocutionary context thus should be included in models of early verb meanings, a Dutch-speaking child participated in a naturalistic case study in his home, as he grew between the ages of two and three years. The researcher taped the child's interactions with his parents, for a total of 24 hours of audio and visual recordings. The visual recordings provided immediate physical context for the child's utterances, which facilitated the pragmatic analysis. The child's utterances in context were analyzed in terms of Searle's traditional speech act framework, which strongly connects speech acts, felicity conditions, and situational context. Results revealed that verbs do not have regularly appearing properties related to the communicative context that distinguish one verb from another; however, each verb has a number of context features that frequently appear together. These clustered features argue for a prototype framework for early verb acquisition. The results also show that a level of illocutionary-situational verb meaning must be taken into account, and that the early symbolic use of verbs is quite different from the symbolic use of object words. This could be because of the complexity of verbs, which require children to make abstractions on the pragmatic level, rather than on the representational level as is the case with object words. (SKC)

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SITUATIONAL PROPERTIES OF EARLY VERB MEANING

Pol Cuvelier
UFSIA University of Antwerp, Belgium

Nowadays developmental research hardly shows any doubt as to the role of the interaction context in language acquisition. The first stage of lexical acquisition is believed to include a huge amount of situational information.
The assumption that word meaning is referential from the outset is no longer held. However, for a long time the acquisition of word meaning was believed to be simply a question of establishing a link between a linguistic symbol and the right referent in the outside world.

For the stages beyond the very beginning, the referential meaning assumption is still very common. It is predominant in most versions of the Semantic Feature Hypothesis and also in alternative theories such as Bowerman's (1985) prototype-approach or Barrett's (1982) contrastive hypothesis. Referential approaches imply a straightforward relation between language mastery and knowledge of the world.
The present paper questions the validity of the referential approach for verbs in the period between 2 and 3. An alternative is proposed in which, besides referential properties, context properties are also integrated into verb meaning. At the same time, the approach implies a strong cognitive intervention by the child.

The situational context is, of course, a very obvious basis for early verb meaning. Verbs, unlike object nouns, relate to a wide range of phenomena in the outside world. They refer to processes that develop through time (e.g. grow, deteriorate, ...), the referent actions or events have no sharp boundaries (travel, wander, float,...) and they very often involve a great many people or objects. In addition, the objects and the people involved behave in very specific ways and the distinctions are highly functional (cp. the role of the agent in lay vs. lie, the importance of the reference point in go vs. come, or the intentionality of the moving object in follow vs. drag behind, etc.). So, even from an adult point of view, verbs incorporate meaning properties other than reference in its strict sense.

Apart from that, there is also ontogenetic evidence that leads one to expect properties of the communicative context in verb meaning, even at a stage when the child is already able to refer to real-word objects by means of object words.

As a matter of fact, the social context appears to be crucial for the language learner (Uzgiris 1981): the interaction of a child with the outside world is relevant for language acquisition only to the extent that it is SOCIAL interaction, i.e. interaction with people. This is reflected in the fact that early words are acquired in formats (e.g. Bruner 1983) or interaction routines (e.g. Moerk 1985), that they are linked to the child's plans (Gopnik 1982, Gopnik & Meltzoff 1985) and

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* Author's address: UFSIA, Rodestraat 12-14, B-2000 Antwerp, Belgium

presented in illocutionary contexts (e.g. Ninio 1985). Early words are known to express primitive language functions or speech acts (Halliday 1975, Greenfield & Smith 1976, or Bates 1979 for a survey).
Even for the stages after the very beginning, there is explicit--though occasional--reference to the overwhelming role of the communicative context (in the use of verbs):

> Were they (= the utterances with door, P.C.) constative for the children? We think not. The evidence on which to base an argument cannot be syntactic because almost all of the 'door-utterances we recorded were holophrastic. One might approach the question through pragmatics. Note that stative uses of predicates like open e.g. the door is open, are necessarily constative, i.e. descriptive. Now, without exception, all the earliest uses of door in our data were requests. Requests are not constative. Therefore all we can conclude from this line of argument is that the first doors were not stative and, hence, might have been causative.
>
> (Griffiths & Atkinson 1978: 314)

To sum up, adult verb meanings incorporate a wide range of situational information (as opposed to object noun meanings, which refer to particular objects). In addition to that there is also ontogenetic evidence to look for the roots of verb meaning in the communicative context in which verbs are used.

Within the interactional framework the properties that are most likely to play a role in early word use belong to speech act contexts for speech act contexts have high communicative relevance.
Of course there is a fundamental difference between illocution and the situations that go with speech acts. Illocution involves the attitude the speaker wants to communicate to the listener. However, as speech acts can only be performed adequately in particular contexts, these contexts are essential.

Our hypothesis thus amounts to the claim that verbs consistently occur in particular illocutionary contexts, that each verb has its own context and that verbs differ from one another in that respect. The illocutionary context should thus be included in early verb meaning.

M E T H O D

We have looked for empirical support in production data from one Dutch-speaking child, Jeroen (diminutive Jeroentje), the researcher's oldest son. Jeroen was observed between 2;0.8 and 2;11.26 (MLU 1.31-3.06). Recordings were made at monthly intervals. A case study was performed, in spite of its obvious drawbacks, because it allows a thorough analysis.
As we did not want to bias the interaction variables that were the subject of our investigation we relied on naturalistic observation only. We used unobtrusive and flexible equipment for the audio-recordings (24 hours in all) at the child's home. The interaction context was recorded by means of an 8 mm movie camera with an interval timer. The pictures were meant to provide additional information. All

interaction was transcribed immediately after the recordings.

In the analysis itself we concentrated on the utterances related to motion and location. The choice of motion and location is motivated by the fact that they are relatively well-defined and easily identifiable. Consequently, we might expect reference to emerge here first and to override the influence of the communicative situation.
The context properties scored were directly derived from the felicity conditions that are associated with speech acts in the traditional framework (Searle):

e.g. REQUEST
prep. cond.: H is able to perform A
S wants H to perform A
in terms of communicative context this leads to:
event is ACTION (to be performed by someone, viz. H)
event can be performed by H (H is the agent)
event can be ordered by S

The main reason to adopt Searle's framework is the strong connection between speech acts, felicity conditions and situational context. Felicity conditions define the communicative situation that is required for a speech act to be appropriate. They form the presupposition for the speech act. There is no fundamental difference between that sort of presupposition and the presupposed meaning properties of verbs in it. Moreover, by age 2 - the start of the recordings - the major speech act categories (representatives and directives) are well established.

step 1: speech act scoring
step 2: scoring of corresponding context properties
(15 % of the utterances were also scored by a second judge (the child's mother). Inter-judge agreement was 89 %)
step 3: sorting procedure (per recording and per verb)
step 4: quantitative analysis
1. presence of clusters of properties that occur in over 50 % of the utterances
2. presence of clusters of properties that occur in less than 50 % of the utterances
step 5: qualitative interpretation of the clusters

Fig. 1. Summary of the procedure of analysis

We proceeded as shown in Fig.1. First of all features were identified that occurred with every occurrence of a verb. However, as the frequency of occurrence varied greatly, the features were ranked and the presence of feature clusters was checked for.

R E S U L T S

General

No criterial features of a communicative or situational nature were

found: verbs have, apparently, no properties related to the communicative context that occur all the time and that distinguish one verb from the other.

However, although criterial features are missing, every verb has a number of context features that are frequent and that tend to appear together. They fit in with the predictions of a so-called prototypical framework. Prototypical features belong to prototypical exemplars of the (verb) category (Rosch 1978). They are frequent, they tend to occur in clusters and they are related to the cognitive or experiential background of the language user.

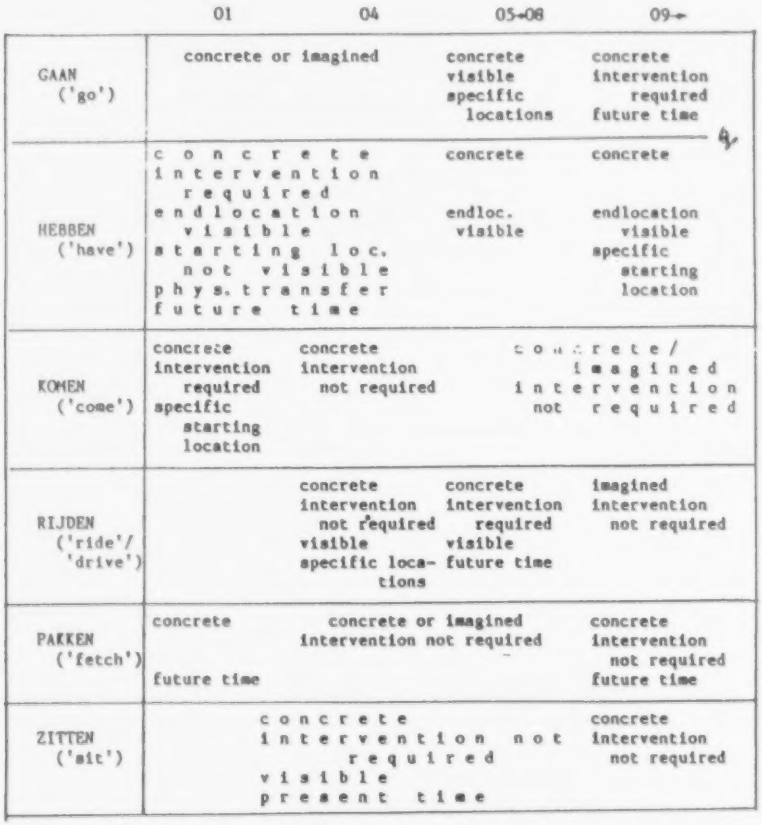

Fig. 2. Pattern for gaan, hebben, komen, rijden, pakken en zitten

Details

Figure 2 is a schematic summary of the pattern that emerges for six common verbs.
In this section the pattern for the verbs gaan 'go', hebben 'have', komen 'come' and rijden 'ride/drive' is illustrated by means of some of the actual utterances. The properties mentioned are prototypical, hence they do not necessarily occur in each and every instance of the verb.

The prototypical illocutionary context associated with gaan can be summarized as follows:

> Gaan requires a situation that the speaker experiences as a direct transition. The transition need not be visible or concrete as long as it is psychologically salient.

In that respect gaan differs from komen or from hebben which require somebody's intervention, and--at the beginning--from zitten 'sit' which requires the situation to be visible. Some examples:

(1) Father: waar is de beer ? 'where is the bear ?'
J: rrr - eg aan (I, 688) 'rrr - gone away'
(he means 'gone' but that is absolutely not true; speech act: reaction to a question-word question - assertion about an imagined event in the past)

(2) gaan ne niejejiepe (V, 303) 'does not no no go'
(J does not manage to drive any further on his little bike; "niejejiepe" is a playful extension of niet 'not'; speech act: deixis-assertion (*)

(3) smurf gaat mee kijk (VIII, 571) 'smurf goes along, look'
(J is playing: he makes puppets do different things; speech act: assertion about event that is mostly imagined - deixis-assertion)

(4) gaat om benzine (VIII, 447) 'going for gas'
(J repeats his description: the toy puppet is going to the toy gas station to get gas; speech act: assertion about a play situation - deixis-assertion repeated)

Hebben 'have' stands out very clearly in illocutionary situational terms. At first (up to recording 05) it is necessarily associated with an action context involving somebody's intervention. That is quite surprising, considering the adult 'meaning' of the verb:

(5) fiets en 'bike have' (I, 887)
(J repeats that he wants to have his toy bike; speech act: repeated request for an object that is absent)

(6) dien hebben (III, 69) 'this one have'
(J wants his brother Bram to hand him in his strainer a particular container filled with sand; speech act: repeated request for an object that is present)

It is only later that more flexibility appears: from recording 08 on hebben is also used in cases in which the intervention of the listener is not required.

The deictic characteristics of komen do not show in the use of demonstrative words, but the verb has a very specific illocutionary context. Initially, komen is used in contexts that include somebody's intervention and (for the speaker) the event is known to start from a particular location. Examples:

(7) kom niet (I, 465) 'not come'
(J does not want his niece Trui to come for a visit; speech act: reaction to a question-word question - repetition of (negative) request)

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* assertion about a visible event

(8) komn mama (II, 346) 'come mama'
(J wants to get to his mother; speech act: auto-directive, intention)

Later on the person who performs the action may vary. At the beginning, komen does not even require a concrete event-context. It only does from recording 08 on:

(9) kijk, kom zelf mee (VIII, 140) 'look, comes itself with'
(J says that toy horse itself comes along with the toy car; speech act: assertion about imagined event / deixis-assertion)

(10) kijk - kom poes - daar (VIII, 211) 'look comes pussy - there'
(J announces the arrival of a cat in the play context; speech act: repetition of an assertion about an imagined event / deixis-assertion)

At the outset rijden is used only when a relation is involved that is visible and concrete, as in

(11) 'roentje weg rijden (IV, 303) '(Je)roentje is riding/driving off'
(J is playing and, at the same time, describing his action; speech act: deixis-assertion)

In later recordings the intervention context shows up as well and concreteness is no longer required. Probably the 'rijden'-event is so well defined referentially that it can be imagined:

(12) kan wel rijden (VIII, 197) 'can drive'
(J maintains that a particular puppet will be able to ride/drive, contrary to mother's assertion; speech act: rejection of assertion about imagined event - assertion about imagined event)

(13) roentje zegt tegen auto boem en dan rijdt hij weg (IX,164) '(Je)roentje says to car 'boom' and then it drives away'
(J continues his story of some imagined event; speech act: assertion about an imagined event)

D I S C U S S I O N

The results of this case study show that a level of illocutionary-situational verb meaning has to be taken into account.

The data also tends to support the idea that the symbolic use of verbs is quite different from the symbolic use of object words. Our subject is at an age at which he is quite able to refer to objects. But as soon as actions or events--even if they have a firm referential basis--are concerned, he appears to bring in the entire context again.

One explanation could be the complexity of verbs, as opposed to object nouns (cp. Gentner 1982). Several researchers (Bowerman 1985, Wolf & Gardner 1981, Van Geert 1985) have pointed to the difference between representation and symbolizing, or even between perception, representation and language.

Nouns differ from verbs both on the representation level and on the symbolizing level. Representing an object is easier, as it merely calls

on the child's faculty to abstract on the basis of (perceptual) saliency. Representing actions or events is more difficult, as the choice of what to abstract is harder: often an event involves several objects or motions, and there is no obvious salient property within an event. Symbolizing in language differs, too. Objects are salient by themselves. So the child can easily pick an object, which is a stable item, from a situation and attach a noun to it. Event representations leave room for more diversity.

Our findings, however, do allow symbolic mastery as a major factor. The child does make abstractions, not on the representational, but on the pragmatic level. Situational binding continues to be present, but it becomes more conventionalized. We would suggest the following stages:

The verb is associated with a situation that the child has experienced or that is salient (strikes the eye, ...)

↓

The verb is associated with a prototypical situation type (script)

↓

Abstraction on the linguistic level: the verb is associated with particular referential and illocutionary properties of the situation

↓

Further abstraction:
verb meaning is made up of referential properties, including some that have illocutionary roots (e.g. dynamism)

The stage observed here is the one before the last: the child does not bring in the entire prototypical situation but he does bring in some (rather abstract) features that are most significant, probably because they are very functional.

The advantage of this explanation is its systematic character. The context properties we use derive directly from speech act contexts. In that way a smooth transition is possible all the way from very early word use (which is fully "pragmatic") to the use of adults, for whom speech acts and speech act contexts are still very relevant.

C O N C L U S I O N S

Provided these findings are supported by data from other children, they lead to the conclusion that early verb meaning is not just biased by non-linguistic, situational factors. It is, for some time at least, made up of situational and interactional properties that differ on a verb per verb basis.

Moreover, contrary to the expectations of Snyder, Bates & Bretherton 1981: 577), the type of pragmatic binding CAN be filled in. The original experiential context has many significant traits, each of which could be picked out by the child. But the child does not choose at random. He sticks to the traits that are most functional: those that belong to the illocutionary situation.

As far as cognition is concerned, the level of abstraction that the child is able to reach for object words is not absent from his verb

use. But the abstractions are in the pragmatic, not in the referential domain.

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